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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,238	12/03/2003	Hironori Taniguchi	245402007900	7512
25226	7590	10/10/2006	EXAMINER	
MORRISON & FOERSTER LLP			KIM, DAVID S	
755 PAGE MILL RD			ART UNIT	
PALO ALTO, CA 94304-1018			PAPER NUMBER	
			2613	

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. **Claims 1 and 7-8** are rejected under 35 U.S.C. 102(a) as being anticipated by Agilent (“Agilent HSDL-3002 IrDA Data Compliant Low Power 115.2 kbit/s with Remote Control Transmission Infrared Transceiver”).

Regarding claim 1, Agilent discloses:

An infrared communication module with a function of transmitting a remote control signal, comprising:

a light emitting element for infrared communication (left transmitter in Fig. 1); and

a light emitting element for a remote control signal (right transmitter in Fig. 1), wherein

said light emitting element for infrared communication and said light-emitting element for the remote control signal are arranged in a region corresponding to a single lens (lower lens in Fig. 1).

Regarding claim 7, Agilent discloses:

The infrared communication module with the function of transmitting the remote control signal according to claim 1, wherein said light-emitting element for infrared communication is a light-emitting element for IrDA data communication (IrDA in Fig. 1).

Regarding claim 8, Agilent discloses:

A portable device (e.g., mobile phone or PDA in Figs. 21-22) comprising the infrared communication module with the function of transmitting the remote control signal according to claim 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 2-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Agilent as applied to claim 1 above, and further in view of Takamatsu (U.S. Patent No. 5,822,099).

Regarding claims 2-6, claims 2-6 disclose various arrangements of light-emitting elements that are known in the art to provide obvious variations of directivity, as exemplified by Takamatsu. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include such various arrangements of light-emitting elements. One of ordinary skill in the art would have been motivated to do this to provide variety in directivity (Takamatsu, notice various directions in Fig. 6).

(claim 2) The infrared communication module with the function of transmitting the remote control signal according to claim 1, wherein a central axis of remote control signal transmission light emitted from said light-emitting element for the remote control signal via said lens and a central axis of infrared communication light emitted from said light emitting element for infrared communication via said lens are different in direction (Takamatsu, underneath round lens 136, the central axis of light from each light emitting element 137 would have a different direction).

(claim 3) The infrared communication module with the function of transmitting the remote control signal according to claim 1, wherein said light-emitting element for the remote control signal is provided on a central axis of said lens and said light-emitting element for infrared communication is provided offset from the central axis of said lens (Takamatsu, notice the central location of the center light emitting element and the offset location of a side light emitting element in Fig. 7; Agilent, placement of a remote control light-emitting element in the center or placement of an infrared communication light-emitting element in the center is an arbitrary decision of design).

(claim 4) The infrared communication module with the function of transmitting the remote control signal according to claim 1, wherein said light-emitting element for infrared communication is provided on a central axis of said lens and said light-emitting element for the remote control signal is provided offset from the central axis of said lens (Takamatsu, notice the central location of the center light

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emitting element and the offset location of a side light emitting element in Fig. 7; Agilent, placement of a remote control light-emitting element in the center or placement of an infrared communication light-emitting element in the center is an arbitrary decision of design).

(claim 5) The infrared communication module with the function of transmitting the remote control signal according to claim 4, wherein more than one said light emitting element for the remote control signal are arranged in a region corresponding to the single lens (Takamatsu, notice the plurality of light emitting elements in Fig. 7).

(claim 6) The infrared communication module with the function of transmitting the remote control signal according to claim 5, wherein said light-emitting elements for the remote control signal are provided symmetrically with respect to the central axis of said lens (Takamatsu, notice the symmetrical placement of light emitting elements in Fig. 7).

5. **Claims 9-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (hereinafter the "APA") in view of Agilent and Branc et al. (U.S. Patent No. 6,081,356, hereinafter "Branc").

Regarding claim 9-12, claims 9-12 disclose the environment of a mobile telephone, which is conventionally known, as shown by the APA (Figs. 18-19). Agilent's teaching applies to such mobile telephones, as shown by Fig. 21 of Agilent. Additionally, claims 9-12 disclose various arrangements of the central axis of emitted light that are known in the art to provide obvious variations of directing emitted light, as exemplified by Branc. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to provide at least one arrangement of the central axis of emitted light, e.g., Fig. 7 in Branc. One of ordinary skill in the art would have been motivated to do this to provide another suitable line-of-sight connection between two communicating terminals (Branc, col. 5, l. 45-50), in addition to the connection shown in Fig. 19 of the APA.

(claim 9) A mobile telephone (APA, Figs. 18-19; Agilent, mobile phone in Fig. 21) with a display portion, comprising the infrared communication module with the function of transmitting the remote control signal according to claim 1, wherein at least any one of a central axis of remote control signal transmission light emitted from said light-emitting element for the remote control signal via said lens and

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a central axis of infrared communication light emitted from said light-emitting element for infrared communication via said lens forms a prescribed inclination angle with a display surface of said display portion (Branc, axis of emitted light in Fig. 7 forms an angle with the display portion of the communicating device in Fig. 7).

(claim 10) The mobile telephone according to claim 9, wherein said inclination angle is an angle allowing one of the central axis of the remote control signal transmission light and the central axis of the infrared communication light forming said inclination angle to be in a substantially front direction with respect to a user and in a substantially horizontal direction when the user holds the mobile telephone in a normal state of using the mobile telephone (Branc, notice the front direction of emitted light and the horizontal direction of the base in Fig. 7).

(claim 11) The mobile telephone according to claim 10, wherein said inclination angle is at least 10° and less than 90° (Branc, the angle in Fig. 7 is within this range).

(claim 12) A foldable mobile telephone comprising:

a first body having a control portion (APA, base of phones in Figs. 18-19);

a second body having a display portion coupled to said first body such that the second body can be opened and closed relative to said first body, said display portion being inclined to face a user when said second body is in an open position while the user horizontally holds the first body (APA, Fig. 18); and

the infrared communication module with the function of transmitting the remote control signal according to claim 1, wherein one of a central axis of remote control signal transmission light emitted from said light-emitting element for the remote control signal via said lens and a central axis of infrared communication light emitted from said light-emitting element for infrared communication via said lens is directed substantially horizontally when the second body is in the open position while the user horizontally holds the first body (Branc, Fig. 7).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ota et al. is cited to show two infrared communication modules wherein the central axes of emitted light from each module forms prescribed inclination angles with the display surfaces of the display portions of

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each module (Fig. 17B). Anzai et al. is cited to show various directions for emitted light from a communication module (e.g., Figs. 7-11).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Kim whose telephone number is 571-272-3033. The examiner can normally be reached on Mon.-Fri. 9 AM to 5 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth N. Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DSK



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